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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,593	10/10/2003	Palanisamy Arjunan	2002B1472	2316
23455 7590 04/30/2008 EXXONMOBIL CHEMICAL COMPANY 5200 BAYWAY DRIVE P.O. BOX 2149 BAYTOWN, TX 77522-2149				
EXAMINER HARLAN, ROBERT D				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
04/30/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/683,593

**Applicant(s)**

ARJUNAN ET AL.

**Examiner**

Robert D. Harlan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 92-104 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 92-104 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1448 or PTO-8890)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment/Arguments***

1. Applicant's amendment and arguments filed on 02/06/2008 have been fully considered and they are found unpersuasive.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 92-104 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Weng et al., U.S. Patent No. 6,225,432 (hereinafter "Weng").

4. Weng discloses a process for preparing a branched polypropylene compositions. which have improved melt strength wherein the melting points are greater than 90 C. See Weng, Abstract; col. 1, line 56 through col. 2, line 16. Weng further

discloses that the branched polypropylenes can be prepared from one or more metallocenes. See Weng Claims 8 and 11. Weng further discloses a wide assortment of metallocenes including metallocenes described in the present claimed invention. See Weng, col. 7, lines 34-41. Although Weng does not disclose all the characteristics and properties of the branched polypropylenes disclosed in the present claims, based on the substantially identical process using substantially identical catalysts and co-catalysts and the close relationship between "heat of fusion" and melting point, the Examiner has a reasonable basis to believe that the properties claimed in the present invention is inherent in the branched polypropylenes disclosed by Weng. Because the PTO has no means to conduct analytical experiments, the burden of proof is shifted to the Applicants to prove that the properties are not inherent. See In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Best, 195 USPQ 430 (CCPA 1977); In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995).

5. In conclusion the Examiner contends: (1) the metallocene used in Weng are substantially identical to the metallocenes used in the present invention, (2) the melting point teaches and branching data do not teach away from the teach of the present

invention, but are consistent with the properties disclosed in the present invention, (3) considering that Weng teaches the use of more than one substantially identical metallocenes, the preparations in Weng and present invention are substantially identical. The Examiner further contends it is obvious to one of ordinary skill in the art to arrive at the claimed unimodal polypropylene, because it appears that the claimed unimodal polypropylene are within the generic disclosure of Weng and a person of ordinary skill in the art would have expected all embodiment of Weng to have similar properties. Furthermore, Applicant has not demonstrated that the differences, if any, between the claimed branched polypropylene and the propylene polymers disclosed by Weng give rise to unexpected results. The evidence presented to rebut the prima facie case of obviousness must be commensurate in scope with the claims to which it pertains. See In re Dill and Scales, 202 USPQ 805 (CCPA 1979).

6. *The Examiner agrees with the Applicant that Weng does not mention that the polypropylene homopolymers have a unimodal MWD. However, the Examiner's argument hinges on the following: the present specification teaches a broad generic selection of metallocene compounds that overlap the metallocene selection of Weng (col. 4, line 3 through col. 7, line 45). The Applicant*

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*have not address the Examiner's contention that substantially identical metallocenes catalysts found in Weng and the present specification would lead to desirable unimodal polypropylene homopolymers. Please disabuse me of this notion by pointing out the distinction in the present specification and Weng that demonstrates convincingly that the metallocenes catalyst in Weng would not lead to unimodal polypropylene homopolymers. Furthermore, there is nothing to suggest that less than 25% diluent would lead to unexpected results. The temperature and macromonomer limitations are taught in Weng.*

7. The Applicant has recently amended the claims to include a specific substitution pattern on the indenyl ring and the Applicant further argues that the polymerization medium has less than 25 volume percent diluent, which is absent in Weng. In Weng, the metallocene catalysts have a substitution pattern where R<sup>10</sup> is found in at least four positions where one of the position is as prescribed by the claim amendment. See Weng, cols. 4-6. Furthermore, the Applicant should expressly point out through indenyl structure the positions that are claimed. With respect to the less than 25 volume percent diluent, the Applicant is correct there are no expressed teachings of less than 25 vol. percent diluent. However, the Applicant makes it

very clear that the propylene/diluent ration is 9/1 and the propylene and diluent combined concentration is 50%. See Weng, col. 10, lines 40-63. Thus, one of ordinary skill can deduce from the information provided that less than 25 vol. percent diluent is permitted and taught.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D.

Harlan whose telephone number is (571) 272-1102. The examiner can normally be reached on Mon-Thu, 10 AM - 8 PM.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 273-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Robert D. Harlan/  
Primary Examiner,  
Art Unit 1796

rdh